Cotton Insect Newsletter

Volume 3, Issue #12 **Edisto Research & Education Center in Blackville, SC** **31 July 2008**

Fall Field Day (Put it on your calendar***)***

Our annual Fall Field Day will be held at the Edisto Research and Education Center near Blackville, SC, on 4 September 2007. Registration will begin at 9:00AM. Tours and programs will begin at 9:30AM. Lunch will be from 12:00 to 1:15PM. The cotton/soybean/corn program will be immediately after lunch (1:30-3:30PM). Here is a short version of the program:

EDISTO RESEARCH & EDUCATION CENTER

2008 EDISTO FALL FIELD DAY

SEPTEMBER 4, 2008

9:00 – Noon **Registration**

9:30 – Noon **Peanut Tour**

9:30 – Noon **Beef Cattle Tour**

Noon – 1:15 **Lunch and Indoor Program**

Wheat Update & Long Range Weather Forecast

1:30 – 3:30 **Corn, Cotton & Soybean Tour**

Status of Cotton Crop

As of 27 July 2008, the USDA NASS South Carolina Statistical Office had our progress at 88% squaring, equal to the 5-yr average. About 43% of the crop is setting bolls, just ahead of the 5-yr average of 39%. Only 1% of the state's cotton crop was reported to be in excellent condition. The remainder was reported as 28% good, 38% fair, 23% poor, and 10% very poor. These are observed/perceived state-wide averages.

Status of Soybean Crop

As of 28 July 2008, the USDA NASS South Carolina Statistical Office had our conditions for soybeans at 20% very poor, 23% poor, 34% fair, 22% good, and 1% excellent.

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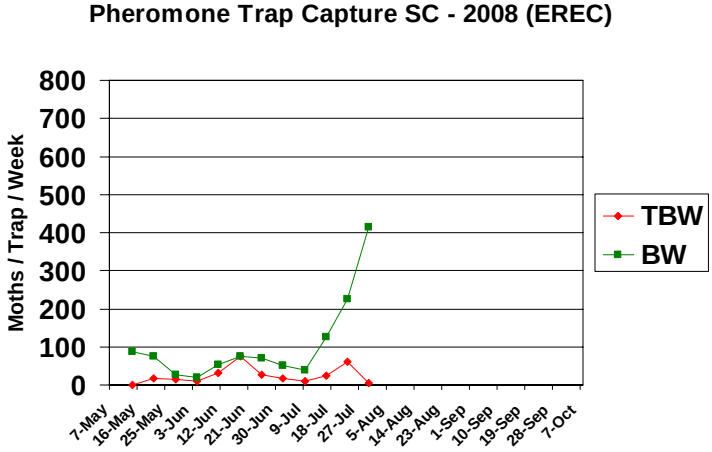
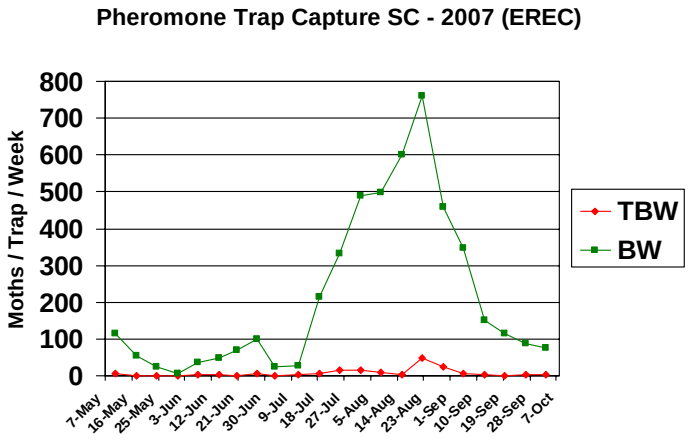
Tobacco Budworm & Bollworm

Captures of adult tobacco budworm (TBW) and bollworm (BW) in pheromone traps at EREC this season and last season are pictured below. The scales on the 2008 and 2007 charts are the same to illustrate where we are compared with last year. As you can see, we observed tremendous increases in bollworm captures – a little heavier than that observed during late July in 2007. Numbers of TBW were down this past week.

Bollworm (left) and tobacco budworm (right)





News from Below the Lakes

A consultant in the local area informed me that all of the non-Bt cotton he is checking is getting treated for the third time this week. Moth flushes are mostly bollworm, so most are going with a pyrethroid to control bollworm and stink bugs. Bt cotton looks good – checking it for stink bugs and escaped bollworm. The same consultant brought me a hatching egg mass of armyworms. I could not determine whether they were fall or beet armyworms. I would be on the lookout for fall armyworm feeding. That is a pest that can still hurt us. See armyworm recommendations below.

News from Above the Lakes

No news this week. Please send me your observations and comments!

Armyworms

Beet armyworm and fall armyworm problems usually do not occur until late July or early August, as neither species is known to overwinter in South Carolina. Moths of both species lay eggs in masses of 80 to 100 on the undersides of leaves. Newly emerged fall armyworms (first instars) tend to feed singly on the younger growth within the middle portion of a plant. Small beet armyworms are gregarious, and will feed in clusters on the

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undersides of leaves through third instars. When small larvae feed on the inner surfaces of square bracts the etchings will be visible externally. Fall armyworms are often found in blooms, where they feed on floral tissue and pollen. Like bollworms, fall armyworms will eventually damage larger bolls. Beet armyworms feed on squares and blooms, but they usually do not bore in to bolls. Large beet armyworms are capable of completely defoliating cotton plants.

ARMYWORMS (BEET AND FALL ARMYWORM)

Product	Product/acre	Lb ai/acre	Acre/gal	REI	PHI	Comments
emamectin benzoate **(R)**		0.0075-0.015		48 hr	21 d	Suppression
Denim 0.16 EC (BAW)	6-8 oz		16-21.3			of spider
Denim 0.16 EC (FAW)	8-12 oz		10.7-16			mites
indoxacarb		0.09-0.11		12 hr	14 d	
Steward 1.25 EC or SC	9.2-11.3 oz		11.5-14			
methoxyfenozide		0.06-0.16		4 hr	14 d	
Intrepid 2 F (BAW)	4-10 oz		12.8-32			
novaluron		0.039-0.078		12 hr	30 d	
Diamond 0.83 EC	6-12 oz		10.7-21.3			
spinosad		0.067-0.085		4 hr	28 d	
Tracer 4 SC	2.14-2.9 oz		45-60			
thiodicarb **(R)**		0.6-0.9		48 hr	28 d	Acts as
Larvin 3.2 F (FAW)	1.5-2.25 pt		3.6-5.3			ovicide also
methomyl **(R)**		0.45-0.675		3 d	15 d	May redden
Lannate 2.4 LV (FAW)	1.5-2.25 pt		3.6-5.3			leaves

Control of fall armyworms (FAW) may be justified when 10 or more larvae are found per 100 plants. Check blooms for the presence of FAW and look for feeding symptoms on boll bracts in the lower canopy. For beet armyworms (BAW) consider applying an insecticide when there are five or more "hits" per 100 feet of row, with larvae present. A hit is defined as a plant with one or more leaves damaged from the feeding of beet armyworms emerging from one or more egg masses. The first visible sign will be a brown spot about the size of a quarter on the upper surface of a leaf, produced by an aggregate of small worms (hatchlings from a single egg mass) feeding on the underside. As worms increase in size, the upper leaf surface will become net-veined, and larger worms will eventually feed completely through the leaf. Begin scouting for beet armyworms upon observing the first hit in a field. Randomly select five locations in a field and examine all plants on 100 feet of row at each location – determine the average number of hits per 100 feet of row. Cotton with a single *Bt* toxin (i.e. Bollgard) will only provide minimal control of the two armyworm species, but varieties containing two endotoxins will provide good control. Pyrethroids and other ovicides applied for bollworm control will also provide some degree of control of eggs and newly hatched armyworms; however, after the worms have fed on cotton plants, these materials will be less effective. Best control is achieved when applications of insecticide are timed to coincide with egg hatch and emerging larvae.

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Need More Information?

Log on to the following webpage to view important cotton management recommendations, data, and historical cotton insect newsletters: http://www.clemson.edu/scg/ipm/cotton.html

Sincerely,

Jeremy K. Greene, Ph.D.
Cotton Entomologist

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